



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,430	11/13/2003	Joseph D. Rigney	041A.0005.U1(US)	1772
29683	7590	02/17/2005	EXAMINER	
HARRINGTON & SMITH, LLP				TUROCY, DAVID P
4 RESEARCH DRIVE				ART UNIT
SHELTON, CT 06484-6212				PAPER NUMBER
				1762

DATE MAILED: 02/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)
	10/714,430	RIGNEY ET AL.
Examiner	Art Unit	
David Turocy	1762	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 06 January 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) The period for reply expires 3 months from the mailing date of the final rejection.
- b) The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. The proposed amendment(s) will not be entered because:
 - (a) they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) they raise the issue of new matter (see Note below);
 - (c) they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Detailed Action.

3. Applicant's reply has overcome the following rejection(s): _____.
4. Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. The a) affidavit, b) exhibit, or c) request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
6. The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. For purposes of Appeal, the proposed amendment(s) a) will not be entered or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

- Claim(s) allowed: _____.
 Claim(s) objected to: _____.
 Claim(s) rejected: _____.
 Claim(s) withdrawn from consideration: _____.
 8. The drawing correction filed on _____ is a) approved or b) disapproved by the Examiner.
 9. Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.
 10. Other: _____

DETAILED ACTION

Response to Amendment

1. The amendments filed 1/6/2005 have been fully considered and reviewed by the examiner. The examiner acknowledges the addition of "restoring adjacent airfoil to airfoil throat distance to about the distance preceding the engine fun without use of excess coating that must be subsequently removed" to the independent claims 1, 19, and 25. Additionally, the examiner acknowledges the additionally limitation of restoring the dimensions "without a weight penalty". However, such amendments add new limitations to the claims that were not present in the finally rejected claims and therefore require further search and consideration. In addition, the new limitation of repairing the thickness to "about" the previous dimensions without removal of an excess amount of coating may raise new matter issues.

Response to Arguments

2. The arguments and amendments filed Applicant's arguments filed 1/6/2005 have been fully considered but they are not persuasive.

The applicant has argued against the Draghi reference stating that it teaches away from the method of the present application. Applicant argues that Draghi teaches, "sufficient bond coat remains". While Draghi's method does not teach of remove the entirety of the metallic bond layer, they teach, in the admitted state of the art at the time of their invention, of a known and conventional method for turbine repair (Background of

Art Unit: 1762

the Art). This disclosed method includes “although the stripping process effectively removes the ceramic and metallic portions of the coating, it also removes a portion of the bas metal under the metallic portion” (Column 1, lines 57-60).

The applicant argues that Draghi does not conduct any measurements or perform calculations to rebuild and restore overall dimensions to increase subsequent engine operation efficiency. The examiner respectfully disagrees. Draghi teaches that it is desirable to “repair thermal barrier coated parts periodically to restore them to desirable conditions” (Column 1, lines 44-46). Restoring the coated parts to desirable conditions inherently teaches of restoring the component to its original state, i.e. dimensions, thereby increasing the operation efficiency. Draghi does not explicitly teach of performing calculations to determine the amount of coating to apply, however, such calculations are inherent as discussed in the USC 103(a) rejection from the office action dated 11/13/2004.

The applicant argues that Draghi does not restore the coated dimensions of the component and they only teach of an application of a flash coating to increase the number of times a part can be repaired. The examiner respectfully disagrees. Draghi teaches, by way of the admitted state of the art at the time of their invention, that it is desirable to “repair thermal barrier coated parts periodically to restore them to desirable conditions” (Column 1, lines 44-46). Draghi teaches of the “reapplication of the both layers of the thermal barrier coating” (column 2, lines 13-15), where the thermal barrier coating consists of a metallic layer and ceramic layer.

The applicant argues against the Arnold reference, stating that it does not teach of the suggested calculation sequence and the particular coating and removal steps. Arnold is utilized as a second teaching that during repair of turbine engine foils dimensions are readily measured to determine the amount of build-up thickness to use, which requires the same "t+Δt-Δx" analysis as discussed above in the 35 USC 103(a) rejection.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Schaeffer is concerned with the repair of thermal insulating ceramic layers and Arnold is discusses a method of manufacturing and repairing turbine airfoils.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a

Art Unit: 1762

reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

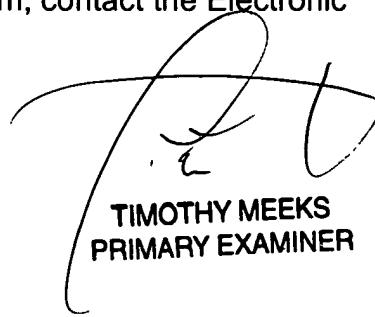
Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Turocy whose telephone number is (571) 272-2940. The examiner can normally be reached on Monday-Friday 8:30-6:00, No 2nd Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Turocy
AU 1762



TIMOTHY MEEKS
PRIMARY EXAMINER